# *Another Kind Of Picture*

*I've been by and large blissfully ignorant of the intricacies of home theater until recently. We had a 21-inch TV, a no-name DVD player, and a basic VCR. On the audio side, I had a pretty decent if old hand-me-down NAD amplituner and a pair of Wharfedale Diamond 7.2 Anniversary speakers, which my somewhat audiophile father assured me were superb for the pretty low price. However, I had gotten annoyed at watching DVD's as a thin slice in the middle of the small screen, and the amplituner wasn't much good for things other than music either. Eventually the NAD's connections started to crackle again and I decided to put it into circulation and get some new stuff instead of having it serviced. This started my adventure into home theater, which eventually ended me up with a plasma TV and other fun stuff. I learned a good bit of stuff along the way, and my opinions evolved too. As it happens, I set up two home theaters along the way: one in a dedicated room using a packaged 5.1 kit and projector, and one (of my own) with the components bought separately. This has certainly not made me an expert (that would take way longer and be way more expensive than my little adventure), but I felt that some of the things I discovered could be useful for other people who want something like a home theater but want to do it on a budget. In particular, I put a lot of thought into two of my choices, and I believe they would have slipped under the radar had I not done a good bit of work and had a good bit of luck too.*

When I started out on my quest, I knew almost nothing about TV's, and very little about the state of the art in amplituners and other widgets. So I defined my requirements instead. I wanted something with a natural, "free" picture and sound, that was good enough to last more than just a year or two, and that was simple and straightforward in day-to-day use. My total budget for this bit of fun was on the order of my one month's disposable income, give or take a week or two: pretty big for an entertainment purchase in my book, but a small fraction of what serious home theater enthusiasts would expect to spend. I also knew that I don't want to use it for gaming, the Internet, or video editing, which means that I can compromise a good bit on the connectors and such. I already had a no-name DVD player, which certainly plays DVD's but has a quite a number of minor issues around it, so I decided to avoid the "incredible bargains" of no-name devices, and stick with major, established brands.

> I did come across one no-name incredible-bargain brand that was very intriguing; if I had been a bit more adventurous I might have bought into it. The no-brand brand is called ProCaster and it has nothing to do with fishing. I was struck by the fact that their widgets have excellent connectors -- way better than on brand-brands in a similar price bracket. Since this is one (critical) area in which the no-brands usually skimp, I felt that it might be different. Their 7.1 amplituner scored quite well in some magazine tests too...

## *The Sideskip: Packaged Home Theater*

As a consequence of my new-found interest in home theater, I got to set up someone else's "packaged" Sony home theater system in a room dedicated for it. The system included an integrated DVD/CD player/amplituner, five speakers and a subwoofer, a pretty good data/home theater projector, and silver screen. It was fun and educational, and I got to play with a "real" 5.1 sound setup, as well as get an idea of how an image with a projector and silver screen works. It's something I had considered at one point, but no longer do, thanks to my experience with it.

### *Six not always more than two*

Put bluntly, two good speakers and a dedicated amplituner whup six not-so-good speakers and a boxed DVD player/amplituner any day of the week, even if the room acoustics favor the boxed set. Nope, it wasn't so bad to be actually embarrassing, but it wasn't really nice either -- it sounded "blocked," "fuzzy," "squawky," and generally unimpressive in comparison. Moreover, I didn't really get a major kick out of the extra channels either -- I watched a few episodes of Battlestar Galactica 2004 (great series, btw -- if you're into sci-fi, check it out) and only noticed the surround effects on a couple of occasions. The center speaker did fix the dialogue neatly on the screen, but that's not much of an issue anyway unless you're sitting much to the side... and unless the main speakers aren't up to the job of creating a real stereo image. In other words, if you don't have the space, money, or inclination to set up the rear and center speakers in your home theater, you may not be missing much. The effects speakers are more like a neat gimmick than something that really adds to the immersion, and the center speaker is a solution for a problem that really doesn't exist in most home theaters -- it'll only make a difference if you're sitting at a significant angle to the screen. Personally, I would not bother with a 5.1 setup unless I could have something about as good as my main speakers for all of them (which, incidentally, is a completely feasible proposition if you have the space for it).

### *Total experience*

On the whole, the image projected on the silver screen was pretty good. It had a rather a cinema-like look. It was clearly not processed the same way TV's process images -- both in the good and the bad. The tonality was nice, but the separation between in-focus and background elements wasn't. Moreover, because of the way an LCD projector works, there was occasional temporal aliasing -- flashes of "rainbow" color as the eye moved rapidly across the screen.

A projector/silver screen setup is clearly for the dedicated home theater only. Because of the time the projector takes to warm up, the need to properly darken the room, and the sheer size of the picture, ordinary TV is simply out of the question. And for pure image quality, the projector in the end doesn't match up to comparably priced plasma, LCD, or rear-projection sets. But for a really "cinema-like" experience, it's great -- assuming you have the room to spare.

## *Sound*

Since I already had a pair of decent speakers and my amplituner was becoming unusable, that was the first thing on my shopping list. After interviewing some audiophile friends of mine and determining that an amplituner they found respectable cost way more than I intended to pay for it, I started doing some research on the net and in magazines. This is the conclusion at which I arrived:

**Any integrated amplituner from a major brand with the connectors needed to plug in your stuff will do.** In practice, this means an entry-level 5.1 home theater amplituner from, say, Yamaha, Sony, or Pioneer. Even the cheap ones are really good nowadays, with S/N ratios and harmonic distortion levels better than on pretty respectable gear, say, 15-20 years ago. There's actually precious little difference in the way the damn things sound until you get up to the 700+ euro price level -- and at that point, the amplituner would really require better speakers to do it justice, at which point we're easily looking at $3000+ for the sound only. What you get by going up from the basic 300-or-so-euro model is nicer finish, more and better connectors, eventually 6.1 and 7.1 sound capability, a snazzier remote, and so on. But the sound is really not that different -- and in any case, the speakers, the space you set them up in, and your ears will matter more than the small differences between them. However, I would recommend staying away from the integrated DVD+amplituner "home theater packages" if you care at all about the "natural" quality of the sound: those things sound just plain weird.

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*If you're considering a "surround" home theater speaker kit, do yourself a favor and get yourself a pair of something like these instead. They'll cost less and sound way better. The 7.2's are discontinued, but I'm sure the 8.2's you can get for under 200 euros are not worse. Oh, and I've no reason to think Wharfedales are better than any of the other major brands; capitalism being what it is, I doubt any of 'em are actually bad and many could be better.*

> The numbers -- 5.1, 6.1, 7.1 -- indicate the number of channels on the amp. That is, you can attach 5, 6, or 7 speakers and a subwoofer (for the low sounds) to it. My not-so-humble opinion is that even 5.1 is overkill most of the time, and 6.1 and 7.1 is just nonsense unless you actually have a room you can dedicate solely to home theater and enough rather nice speakers to make good use of the sound... in which case you probably won't be looking at 300-euro amplituners anyway. Several audiophiles I've both talked with and read are emphatically of the opinion that a solid pair of stereo speakers will whup any boxed 5-6-7.1 set any day of the week -- even in the "three-dimensionality" of the sound. A boxed set will sound better than a TV, and having a center speaker will help cover up some of the most glaring deficiencies in cheap speakers, but a pair of halfway decent (which does not necessarily mean super-expensive) primary speakers will always sound much better. This certainly jibes with my experience of the Sony 5.1 boxed set that I discuss above.

**My choice: The Yamaha RX-V350.** Why? Because I got a demo copy for cheap, it was decently built, had good connectors for the main speakers, and I imagined I liked the sound just a hair better than the corresponding Sony and Pioneer that I also listened to. Of course, a few days later I came across the next model up for just about the same price I paid (another demo copy). But really, I'm pretty sure that I'd have been just as happy with any of them.

**What I learned:** Steer clear of "surround" boxed sets. Instead, go with a dedicated amplituner and a pair of dedicated main speakers. Even inexpensive ones will sound much better than a kit that may actually end up costing more. If you want a significant improvement over that, be prepared to budget several thousand euros -- and while certainly real, the difference between a 500 euro setup and a 10,000 euro setup may be smaller than you think. (Yes, I have listened to both.) If you have to choose between good

primary speakers and anything else, get the good primary speakers. Then add a subwoofer (but only if needed -- even pretty small speakers can handle bass better than you might expect nowadays, and adding a poor subwoofer would only add more bass rather than better bass). Consider the other "effects" speakers only if you have good primaries **and** you have a dedicated room big enough to set them up so that they're not barking in your ear if you're sitting close to them. If your room is big and you'll have people sitting towards the side, the center speaker will help. If so small that the people sitting towards the sides will be sitting just by a rear speaker, the rear speakers may do more harm than good. Whatever you add, buy at roughly the same quality as your main speakers; if they're worse, they'll only muddy up the sound, and if they're better, you won't be making the most of them.

**My experience:** Well, a new cheap Yamaha sounds better than an old dirty NAD, no question about it. The sound is clearer and "breathes more easily," there's noticeably less amplifier hum, and of course everything *works* -- and it's designed to work with a home theater. The sound also compares surprisingly well to my father's way more expensive Genelec setup -- nope, it's not in the same class, but when I listen to his stuff and then come home to listen to my stuff, the transition is less painful than I'd have expected. No gripes.

## *Picture*

A TV is a pretty major purchase for a consumer durable. Therefore, I put a good deal of effort into researching them, and just looking at them. I carried a copy of the Two Towers DVD in my satchel and asked to watch it on some models that interested me. It was an interesting quest, and one where my original specifications got turned around almost 180 degrees.

I started on my quest because my eye had been caught by some pretty impressive-looking and not horribly expensive LCD TV's in the 30-32 inch category. Some ViewSonics were on display at a store I often visit. The size felt about right for the pretty small space I have, too. I also felt that it would be very important to have HDTV capability for the not-too-distant future. So I originally started scouting for a 30-32 inch LCD TV with a vertical resolution of at least 768 points. I fairly quickly discovered a number of things:

**The panels are all pretty good, but the image processing varies.** While the quality of the picture on LCD TV's looked very impressive at first sight -- sharp, punchy, colorful -- the more I looked at them, the less I liked them. Almost all of them had an unnatural, "plasticky" look to them, much like photos that have been de-noised with too much NeatImage and then had the poop sharpened out of them. I also found both the higlights and the shadows often lacking in detail, and many of them had weird and often unpleasant shifts towards the blue in shadow areas. As a group, LCD TV's, especially the inexpensive ones I had originally looked at, often had the same things wrong with them as inexpensive point-and-shoot digicams: oversharpened, overly colorful, and overly contrasty at the expense of shadow and highlight detail. Clearly, response times were an issue on some of them, too: in pan shots, the background smeared into a blur and "flattened out" the picture where others (and especially any plasma screen) would retain a crisp image even when it was moving very quickly.

**The exceptions:** Panasonic, Sony, and to a degree, LG. When looking at the TV's as a group and picking out the ones that I really like, these three invariably stood out, in this order. The Panasonics in particular had a low-key, natural look about them, with excellent skin tones and especially skin textures -- the people looked like people instead of plastic mannequins. The Sonys were close, and the LG's not far behind especially when looking at DVD's. The Panasonics were clearly the best at making the most of a poor signal. Interestingly, none of these were the ones that initially grabbed my attention -- my eye was rather naturally drawn to the punchiest of the bunch first, and these three weren't there.

However, when looking at the ranks of TV's on the walls, the ones that I liked most were never the LCD's. They were the plasma panels. I can't say exactly what it was that I liked more about them, especially compared to the best LCD's, but the image just somehow looked more natural and "film-like" on them. Moreover, the LCD's that I really liked, especially the Panasonics, cost almost as much as plasma screens anyway. So, at the next step I moved my sights up to 37-inch plasma screens: the biggest

size I could comfortably fit in the space I had in mind.

So, more research followed. I read reviews and studied specs, and looked at pictures of the things: after all, you'll be seeing a TV even when it's off, so being ugly is a major point against it.

I originally stuck to my original specification of "HDTV capable" which meant that I eliminated all of the so-called "EDTV" plasma screens, with a resolution of only 480 lines vertically. This meant that I was looking at low-end 37-inchers from Samsung, Sony, Thompson, and a few others -- the high-resolution Panasonic being out of my budget. The one I liked most from the specs and design was the Samsung PS-37S4A. It looks downright cool, with a simple, understated elegance, has a "megapixel" panel (1024 x 1024), decent contrast ratio, all the connectors you could wish for, and the price was right. I had already practically made up my mind to buy it when I marched into the store, trusty Two Towers in hand.

But I didn't buy it.

The reason was that I just couldn't get the kind of picture out of it that I wanted, even from the DVD let alone broadcast TV. The shadows were completely blocked, and the skins were polished to a plasticky sheen worthy of Ken and Barbie. Which only goes to show that specs can tell you only so much. So I informed the salesman who had kindly set up a DVD player for me that unfortunately that one was out, but he had a really good chance to sell me something else. What he said was, "Fine: let me plug this into that one; yeah, I know it's only EDTV but I think you'll like it, and if you do, I can sell it for the same price as the Samsung." What "it" was, was the **Panasonic TH-37PA50** -- the little brother to the HDTV-capable (and good deal more expensive) TH-37PV500 (which they also had on display).

> As far as I can tell, this model is not sold in the US; however, the same panel appears to be used on the "industrial" series TH-37PWD7UY [http://reviews.cnet.com/Panasonic_TH-37PWD7UY/4505-6482_7-31137096.html].

Hell yeah, I liked it.

Once I turned down the "everything at 11" store settings, the picture was everything I wanted: subtle shadow and highlight detail, beautiful skin texture, beautiful but low-key color, and a "three-dimensional" look that very few of the TV's had managed to create. Yep, it only has about half the pixel count of, say, the Samsung, but at normal viewing distance of a moving picture, there was no noticeable difference in sharpness. What I don't know, of course, is how it will look with an HDTV signal compared to higher-resolution screens, but I have a feeling it will acquit itself well: even on a DVD with pretty good production values like Two Towers, the weak link in resolution is clearly the signal and not the panel -- and a higher-resolution signal won't make the shadows and highlights look any better on the Samsung.


*The Panasonic TH-37PA50. In my opinion, it had the best picture of any TV in this size class irrespective of pixel count (other than its higher-pixel-count sibling, the TH-37PV500... and that was damn close to a draw). (Picture ripped off the Panasonic website; presumably it's there for this kind of use so I don't think I'm breaking any rules here.)*

So there we are, my choice for TV was the **Panasonic TH-37PA50**: just like with cameras, the number of pixels turned out to be less important than the quality of the pixels. However, there was another one on display with a similar price tag and a higher-resolution panel, better connectors, and very similar picture quality: the Sony KE-P37XS1. Unfortunately it was a no-go because of the speakers on the sides: it would have been too wide to fit in the spot I wanted for it.

**What I learned:** There are differences between sets that are very real but not immediately obvious -- and that are often masked by the garish "look at me" settings the sets have in the store. By the numbers, LCD's ought to be better than plasma screens. However, I just didn't like the way they looked -- they looked "artificial" and "digital" in a bad way. Image processing is the bee's knees -- TV's with the same panels looked wildly different depending on what was feeding them. To my eye, Panasonic had the best image processing with Sony a close second and LG another standout; I wasn't too impressed by any of the others. And finally, just like with cameras, the quality of the pixels matters more than the quantity: a great EDTV looked much better than an average HDTV. I wouldn't have bought one otherwise.

**My experience:** The picture on the Panasonic is even better at home than at the store, what with the better lighting and all. It's actually at its best in moderate room lighting: if the room is completely darkened, I have to turn the brightness down a fair bit which means that the shadows go "noisy" -- since plasma cells have a certain minimum discharge level, the TV renders the darkest tones by switching off some pixels, which shows to the eye as noise. If there's some ambient light and the brightness is turned up to match, this isn't visible. I would like the TV to have a few more connectors -- DVI and HDMI would be nice, although the three SCART's and the component connector do get the job done. I'm mostly thinking about the future: the only way to get an HDTV signal into the box is through the component connection, and if I have a Blu-Ray DVD player/recorder and HDTV tuner, what then? But I figure there will be some way. I like the looks and the build of the TV too, and the usability is at least acceptable, although I would like a dedicated control to switch between viewing modes (instead of going through the menu) and find the "wait for the second digit" pause when switching channels via the number pad mildly annoying. But for the picture quality at this price I'm happy to put up with them.

## *Sources -- DVD and set-top*

Today's a confusing time to buy widgets that plug into your TV. Take two fairly basic things -- a DVD player and set-top box. With the DVD player, you're already confronted with a huge number of options: the different types of connectors, signals, regions, features, and media boggle the mind. There have got to be tens of thousands of possible combinations of features, some of which make a huge amount of difference and others precious little. Here, in a nutshell, is what I learned about the topic.

## *Start with the connectors*

**Make sure the DVD player has the best connector available on your TV -- or, at worst, the second-best.** On the other hand, if you insist on the latest-generation connector that your TV doesn't even have, you might be overpaying by hundreds of euros for a feature you won't even need -- and that might cost peanuts by the time you've upgraded your set to take advantage of it. In rough order of preference, here are the connectors to look for:

1. **HDMI.** This is the new, fancy connector for HDTV signals. The image quality is great and the usability is simple. If your TV has one, it would be good that your DVD has it too.

2. **Component video.** This is actually a set of three connectors, for red, green, and blue separately. The quality is just as good as with HDMI, but it might need some mildly puzzling configuration to set up properly.

3. **S-VHS.** This is a distinct step down already: usually doesn't support **progressive scan** (see below).

4. **SCART.** This you'll find on any TV and DVD. Dead simple but not the best for quality.

If, like me, you end up using component video rather than HDMI to connect the stuff, you'll need a separate audio connector. In order of preference, look for:

1. **Optical digital.** You need this to support multi-channel sound.

2. **Coaxial digital.** If you only have two speakers, this is just as good as optical digital.

3. **RCA stereo.** Being analog, it's more prone to interference, bad connections, and such, but if correctly set up you really have to have a golden ear to tell the difference.

You need either HDMI or component video to support **progressive scanning** -- the single most important feature on a DVD player you want to plug into a nice TV.

## *Progressive scanning*

A regular TV signal is *interlaced.* It consists of *frames.* A TV picture is made up of horizontal *lines.* In an interlaced signal, every other frame transmits the odd lines, and every other, the even lines. Now, a digitally-driven high-tech TV takes this signal, and interpolates the missing lines for each frame, and draws a solid picture every time. This makes for a less flickery, steadier image. However, a DVD contains MPEG video, which isn't (internally) interlaced: it generates the interlaced signal out of it. In other words, the DVD player grabs half the data in a still that makes up the movie, passes it to the TV, which interpolates the other half and shows it. Then it sends the other half. This is repeated for every frame. Obviously, this is pretty inefficient: information is lost, and artifacts (from the interpolation) are introduced. This is where progressive scanning comes in. A DVD player that supports progressive scanning will pass complete, "intact" frames of video to the TV. This results in a steadier, more detailed and more natural-looking picture. (Yeah, it really does -- the difference between my old interlaced DVD player and my new progressive-scan one is huge.)

So much for the theory. In practice, this is what you need to know:

- Get a TV that supports progressive scanning. It'll have either an HDMI or component video input (or both).
- Get a DVD player that also supports progressive scanning. If both have HDMI connections, great. If not, component will give a picture that's just as good, but perhaps with a bit more trouble.
- Make sure to connect the two through the HDMI or component video connectors and set both to *use* progressive scanning. At least with component video, this isn't necessarily the case by default.
- If you need to use component video output and you want to use surround sound, make sure the DVD has digital optical audio out.

Seriously. If there's one feature on your DVD player that you need to look out for, it's progressive scanning and connectors that support it and match your TV.

### *Other features*

There's a lot of other features associated with DVD's that don't really mean much. For example, some machines convert a DVD signal to an HDTV signal. Others have fancy image enhancement circuits. These don't really matter: they can't make the signal any better than any ol' progressive scanning DVD player with good-quality connectors and plugged in with cables that aren't absolute rubbish. However, some other features that won't affect the picture will make a significant difference with regards to usability. You may or may not need them. You may want to make note of:

- Format support. In addition to vanilla store-bought DVD's and CD's, many players can handle CD's, SACD's, CD-R's with JPEG's, DivX's, MP3's, and so on. If there's some particular format you want to be able to play, keep an eye out for it: just because it fits in the tray doesn't necessarily mean it'll play.
- Multiregion support. Most if not all DVD players are "hackable" to work with DVD's from any "region." Some are multiregion out of the box. However, some are easier than others, and some can't be hacked without a special remote or other weird tricks. If you need to play DVD's bought elsewhere than your region, make sure you can get them to work.
- If it's a recorder, what happens when you switch it off? It makes a big difference to usability if the signals from the antenna and the video/audio in get passed through even when it's off.
- General usability. There's a big difference in sheer usability between different makes of DVD players. Some are beastly, others are really nice. Look at the remote. If it looks simple with barely any buttons, the player is probably a breeze to use. If it has a zillion tiny buttons you need a ball-point pen to even push, it's probably hell. Even if you use a different remote. This is a good indicator of how much attention the designers paid to usability. In particular, Sonys are usually excellent, while most of the no-names are pretty horrible.

### *To record or not to record?*

Back in the day, life was simple. If you wanted to record a TV program for later viewing, you got a VCR and plugged it into your TV with an RF cable that only went one way, or, later, a SCART connector that was just as simple. Assuming you could figure out how to set the clock, you were pretty much all set. Not anymore -- especially if you have digital TV, cable, or satellite decoders to deal with. Your options for recording stuff include:

- Good ol' **VHS or S-VHS VCR**, either standalone or in combo with a DVD player. I suggest you forget it. The quality sucks. Get your precious tapes transferred onto DVD and chuck the tape player.
- **DVD recorder,** either with or without a hard disk.

- **Digital TV decoder with a hard disk.** These hard-disk equipped widgets are known as TiVO.

My strong recommendation would be to go with a DVD recorder. I went with one without a hard disk, simply because all the hard disk adds is capacity and a tiny amount of convenience, but it costs rather a lot. Why?

- A DVD recorder allows you to record both analog and digital signals, from any source.
- Digital TV decoders are in a state of flux. DVD recorders are mature technology.
- A DVD recorder is cheaper than a digital TV decoder with a hard disk. You pay less for recording capability, and you get a more versatile, simpler, and longer-lived system.
- And last but definitely not least, *a DVD recorder simplifies your connections and the control of your mess o' stuff a great deal*. Even if you rarely record anything, you might still want to look into getting a DVD recorder just for the added convenience of not having to switch between different types of AV sources depending on what you're watching.

### *Choosing a digi-TV decoder*

Again, a mess of options to choose from. Here I'm even less of an expert with the rest of my stuff. In my opinion, this matters the least. If it's a decent brand, not known to have serious teething issues like the crashes on some Nokias (shame!), and is known to have decent usability, any will do. If it's officially supported by your cable company, great. If it has more comprehensive connectors than the basic RF and SCART, awesome. If it supports both cable and antenna, fabulous -- you won't have to sell it even if you move. I picked the XSat CDTV410 -- a basic box with uncommonly good connectors and both cable and terrestrial support, for very little more than the cheapest cable-only boxes.

The real trick is in stringing it together.

## *Plugging it all in*

Here's the problem: if you did like me and got boxes with lots of good connections, you'll find that there are literally dozens of possible ways to string them together. Some will produce a better picture than others. Some will be much more straightforward in use than others. So it really makes a lot of difference how you connect them. Here's what I did:

- My antenna connects to my DVD recorder (RF In).
- The RF out on my DVD recorder connects to the RF In on my digital cable decoder.
- The RF out on my digital cable decoder connects to the RF in on my TV.

Fine: this ensures that the DVD recorder gets the cleanest analog signal, and the digibox a digital signal still more than good enough for clear reception. Ignore the TV at this point.

- My digital cable decoder connects to my DVD recorder via SCART. ("Out" on digibox to "In" on DVD recorder, duh.)
- My DVD recorder connects to my TV via component video out and RCA stereo out. (The sound is there "just in case;" for movies and such I use the sound system, of course.)

This ensures a very good (progressive scan) signal from the DVD to the TV, no matter what's playing. (I checked, there's no discernible degradation between this setup and connecting the digibox directly to the TV via S-VHS SCART -- on the contrary, actually: the progressive scan helps even here, if only a little.)

- My DVD recorder connects to my amplituner via optical digital audio.
- My digital decoder connects to my amplituner via optical digital audio.

Great, hassle-free digital audio in both cases, with surround sound support too (not that I need it).

## *The catch*

There's a catch.

By connecting everything up this way, I got no picture. Why? Because the DVD recorder had to be separately configured to use the component video output -- and I couldn't do that without seeing the on-screen menu. So, I had to:

1. Connect the DVD to the TV *both* with SCART *and* component video.
2. Tell the DVD to use the component video output.
3. Switch the TV to the component video input.
4. Tell the DVD to use progressive scanning. This caused the TV screen to go blank.
5. Tell the TV to listen for a progressive scanning signal. Yay, the picture was back and better than ever.
6. Unplug the now unnecessary SCART cable -- it'd just cause confusion.
7. Set the TV to AV mode, listening to the component video connection.

## *What all this means*

It means that I can essentially ignore my digital decoder, apart from programming my remote to talk to it for channel switching in a couple of modes. How come?

- If I want to watch TV, I just switch it on (and make sure the digital decoder is on too). The signal goes from the digital decoder through the DVD recorder to the TV. My remote controls the TV normally except for channel switching -- I've programmed these commands to target the digital decoder instead. I can ignore the DVD recorder, since the signal gets passed through whether it's on or off.
- If I want to pause the show I'm watching, I switch on the DVD, make sure a DVD-RW or DVD-RAM with enough capacity is in it, and use its timeslip feature.
- If I want to record something on a timer, I make sure the digibox is on and tuned to the right channel, and program the DVD to record from the AV input.
- If I want to watch a DVD, I pop one in and start watching.
- If I want nice sound, I switch on the amplituner and make sure the input is set to DVD or digital decoder, depending on which it is I'm watching.

Could it be simpler? Yeah, a little -- in particular, timed recording is a bit klugey. However, this is a far cry from having to toggle between different AV inputs at the TV, some of which are progressive and some of which aren't -- not to mention trying to figure out exactly what the DVD is recording when I'm watching something. Point being, it works without much hassle and gives the best quality my widgets can do.

## *The remote*

The next obvious problem I encountered was that of the remote. Because I had happily shopped across brands, I had a set of wildly different and non-interoperable remotes. I was vaguely aware of the existence of universal remotes, but had no idea about the huge variety among them (nor that some of them cost more than my damn TV). Fortunately, I'm more than passingly familiar with usability design and have a very good idea of how I use the widgets I use, and how I want to use them. This helped me a great deal in finding something that worked -- indeed, something that works much better than I expected a universal remote could work.

In the "LCD or hard button" fight, I'm a hard button fundamentalist. I really dislike touch-screens because of the lack of tactile feedback. I learn widgets with my fingers, and if my fingers have nothing to grasp, I find using a widget very very tedious. So I knew I wanted something with enough hard buttons for all the functions I regularly access. However, I also wanted something that's laid out nicely, with the most important buttons at the thumb and less important ones spread around, and all the buttons big enough to easily push. I knew I needed the "learning" capability, since I wanted to be able to control the entire setup as a unit and I expect to use the remote as the system evolves. And I didn't want to spend an insane amount of money for it.


*A design that "just works" -- the Philips SBC RU 760/00 doesn't draw undue attention to itself, and manages to simplify the insanely complicated task of controlling a raft of different home electronics devices elegantly and (almost) seamlessly... after a period of adaptation, of course.*

I was surprised to discover that something almost exactly like I wanted actually existed, and wasn't even very expensive. It's the Philips SBC RU 760/00. It has a deceptively low number of nice, chunky buttons, no screen of any kind, is fully programmable (and comes with preset codes for hundreds upon hundreds of devices), and is extremely well-built (the top is aluminum). The only thing I would've done differently is switching between devices -- now it's done sequentially with a single button, while there would've been room for separate buttons for each of the devices. However, what with the Shift button and the learning capability, it was a snap to set it up to control two or even three devices at a time in a single mode: for example, if I'm controlling the DVD player, now using the Shift button with the menu controls allows me to get into the TV's menus, and the audio controls with no counterparts in the DVD player control the amplituner. On the other hand, if I'm in TV mode, the play control buttons control the DVD. And if I'm listening to music, the controller controls my amplituner and my CD player at the same time. In other words, it integrates the mess of different brand widgets I have into a whole almost as seamless as the Bang & Olufsen wonder my boss has at his home. This little marvel is without a doubt the best remote I

have ever used, and that includes the B&O one that came with a TV I used to own.

## *Cables and stands and stuff*

The final item that needed purchasing was a TV stand. I took a tour of the local furniture stores with my wife, and was surprised to find out that apparently people are ready to pay more for a TV stand than I paid for the entire set of stuff I bought. Moreover, most of the stands were either made-to-measure (and very pricey) or rather inconvenient sizes. In the end and after a fair bit of legwork, I found one that was just about right -- fits at least four standard-width AV devices, has nice smoked-glass doors, carries 100 kg of weight, and even suits the color and styling of the TV. It was also a steal at 79 euros at IKEA.

Cables are the subject for a major war among audiophiles. Some golden ears believe that high-end cables costing in the hundreds of euros per meter sound better than basic cables costing cents per meter. Fortunately, at this level it hardly matters. As long as the contacts are OK, any cable will work. In fact, for the coaxial digital audio connector I found that a regular ol' RCA-plugged cable worked fine, ohms be damned. (Digital cables either work or they don't; if they do, there's no conceivable way they could affect the sound.) The only cable where I did notice a difference between two I tried was the SCART connecting my DVD to the TV, so if you're in the mood of buying cables, I'd suggest you prioritize that one -- I needed one, to connect the digital tuner to the DVD recorder.

## *You Gets What You Pays For*

The biggest eye-openers in the process of shopping for this home theater were the fact that resolution really isn't such a huge deal, and the difference that a good universal remote can make. Accepting the former brought a major leap in image quality at this price point, and discovering the latter removed the nagging feeling that it would be best to stick within a single brand for interoperability. It was also interesting to find out how much money it would be possible to spend for things that don't significantly improve the quality or the usability of the system -- made-to-measure stands, remotes with big color LCD touch-screens, exotic cables, and so on. The way technological development has brought what would have been a high-end home theater experience a few years ago within reach of mere mortals was a quite a discovery too.

The old rule of "you gets what you pays for" that applies so well to cameras applies just as well to home theater... most of the time anyway. There's no doubt that spending five or ten times more would've gotten something seriously better -- real surround sound, a bigger and sharper screen, better "future-proofing" meaning that it could take full advantage of HDTV and Blu-Ray once they hit the market in a year or two and so on. However, whether it would've been five or ten times better is debatable. I believe that this kind of setup -- a low-end dedicated amplituner, low-end hi-fi speakers, good-quality EDTV plasma screen, good universal remote based on hard buttons -- does provide much more bang for the buck than most alternatives. It retains significant upgrade capacity (e.g. more speakers), and will handle the future just fine. Improving it significantly would easily double or triple the cost and require a much bigger space to put it in. Moreover, it's a great deal better than the default choice at this price point: an inexpensive set of surround speakers, a higher-resolution (possibly bigger) display from a cheaper brand with poorer image processing, a combined DVD player/amplituner. For a novice like me, the temptation is big to buy by the numbers -- more pixels, more channels, more speakers, more connections. Yet it's not the best way. Just like with cameras, with home theater sometimes less is more.

## *Stuff I Looked At*

Some of the stuff I looked at (and think may be worth looking at) during my adventure:

- Philips SBC RU 760/00
  [http://www.consumer.philips.com/consumer/catalog/catalog.jsp?fhquery=fh_secondid%3Dsbcru760_00_fi_consu

-- it would be hard to improve on the design of this universal remote. Seriously. Add more stuff and it becomes harder to use. Remove stuff and you won't be able to do everything you want. Rearrange it, and it'll be less accessible. Looks and feels good too.

- Kaxås TV stand by IKEA [http://www.ikea.com/webapp/wcs/stores/servlet/ProductDisplay?catalogId=10101&storeId=15&productId=15218 -- I honestly couldn't find one that looked better or fit better, and the cheapest of the ones I did find cost over three times at much. Not everything IKEA sells is a winner, but this one looks like it.

- Panasonic TH-37PV500 [http://www.panasonic.fi/modules/page/show_page~id~FA33B4943412445CA5BD44C93FE5DFC3~tabletarget~d -- if money was no object, I would've bought this one. However, while it was better than the one I did buy, it wasn't twice as good (which is almost what it would've cost).

- Panasonic TH-37PA50 [http://www.panasonic.fi/modules/page/show_page~id~00B203CCA63A4B3696ACBCF4F531FF60~tabletarget~d -- the Panny I did buy. These two are sort of like the EOS-350D and EOS-20D: the cheaper one is about 90% as good as the more expensive one at about 2/3 the price. Made sense for me.

- ProCaster AV4330 7.1 amplituner [http://www.soundcenter.fi/procaster.htm] -- if I had felt less leery of buying "no-brand," and if the fittings on the front panel had struck me as a little bit better put together, I might have bought this one. It quacks like a bargain and it walks like a bargain, but I'm not confident enough to say that it isn't actually a duck to go and buy one.

- Wharfedale speakers [http://www.wharfedale.co.uk/home.php] -- not all of them expensive, and some of the cheap ones are emphatically not junk. I'm entirely certain that you could do enormously worse than going with, say, their 8.2 or Pacific Pi-10 speakers.

- Panasonic TX-32LX50 [http://www.panasonic.fi/modules/page/show_page~id~CDB9F254EC0B49CAA1A9028AB5611E30~tabletarget~ -- the best of the LCD TV's I looked at. Cost it, too.

- Samsung PS 37S4A [http://www.samsung.com/fi/products/tv/plasmatv/ps_37s4a.asp] -- I liked everything about it other than the picture...

- Sony KE-P37XS1 [http://www.sony.fi/view/ShowProduct.action?product=KE-P37XS1&site=odw_fi_FI&category=TVP+Flat+Panel -- If the speakers had been below the screen rather than at the sides, I would probably have bought this one. To my eye, the image quality wasn't quite as good as the Panasonic I did buy, but the connectors and "future-proofing" is better.

- LG RZ-30LZ50 [http://www.lgenordic.com/index.html?content=http%3A//www.lgenordic.com/cgi-bin/surf.cgi%3Fid%3D1241] -- I liked this almost as much as the Sony and Panny LCD's. No surprise, though: it costs about as much too.

- Panasonic DMR-E65 [http://reviews.cnet.com/4505-6473_7-30673454.html] (recently discontinued and available for pretty cheap) and Panasonic DMR-ES10 [http://www.panasonic.fi/modules/page/show_page~id~08A2B71C9F8441D7A3F0E0B89D435543~tabletarget~da -- two very similar reasonably priced DVD recorders, either of which would probably have fit my bill. The E65 is older but has even more connections than the ES10, but the ES10 supports more formats and was multiregion out of the box. The E65 wasn't easily multiregionizable, and the other was out of stock, so I didn't buy either of them in the end.

- Samsung DVDR-120 [http://www.samsung.com/fi/products/dvd_players/dvd_recorder/dvd_r120.asp] -- This is the one I bought. Sort of combines the nicest features of both of the Panasonics -- excellent connections and comprehensive features, and very "polite" with the other equipment. Comes with a

remote that works with most common brands of TV, but is still a poor substitute for a real universal remote. I like it a lot so far.